

Integrated Diagnostics for Legacy Platforms

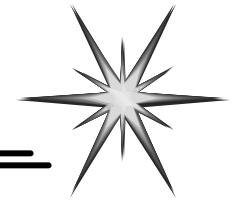
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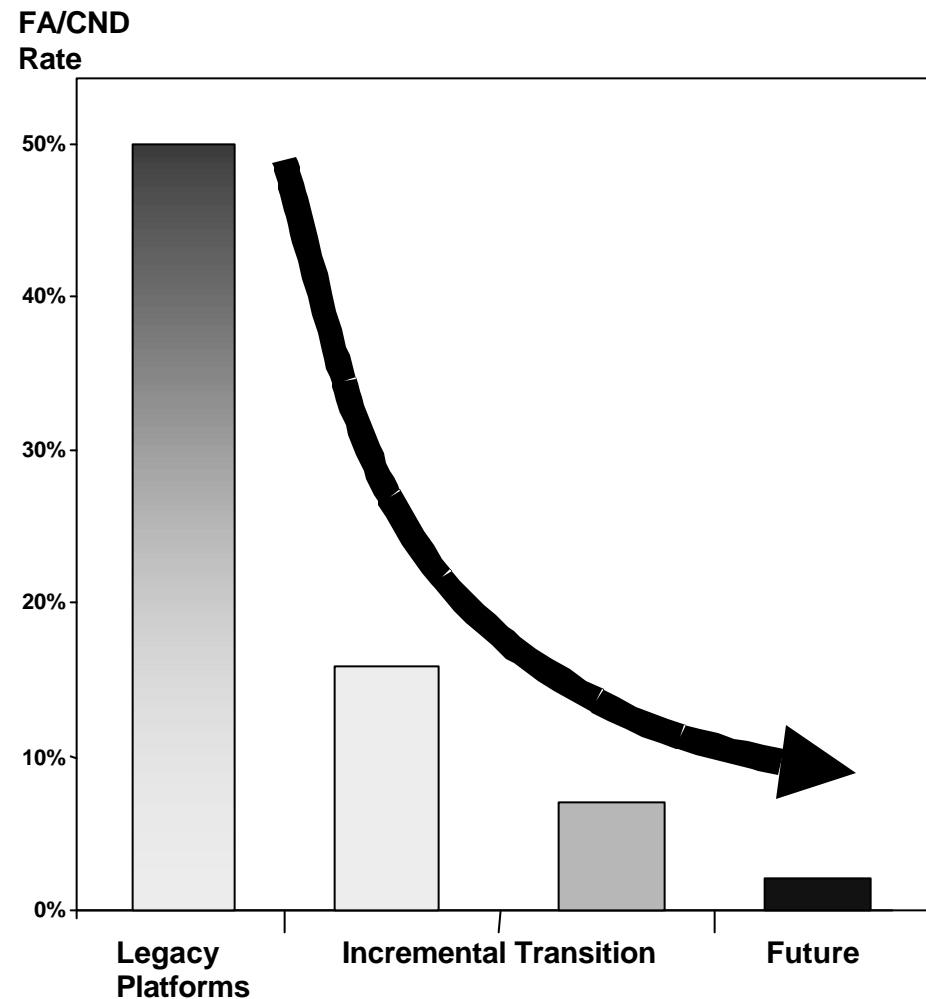
2000 Systems Engineering
and Supportability Conference



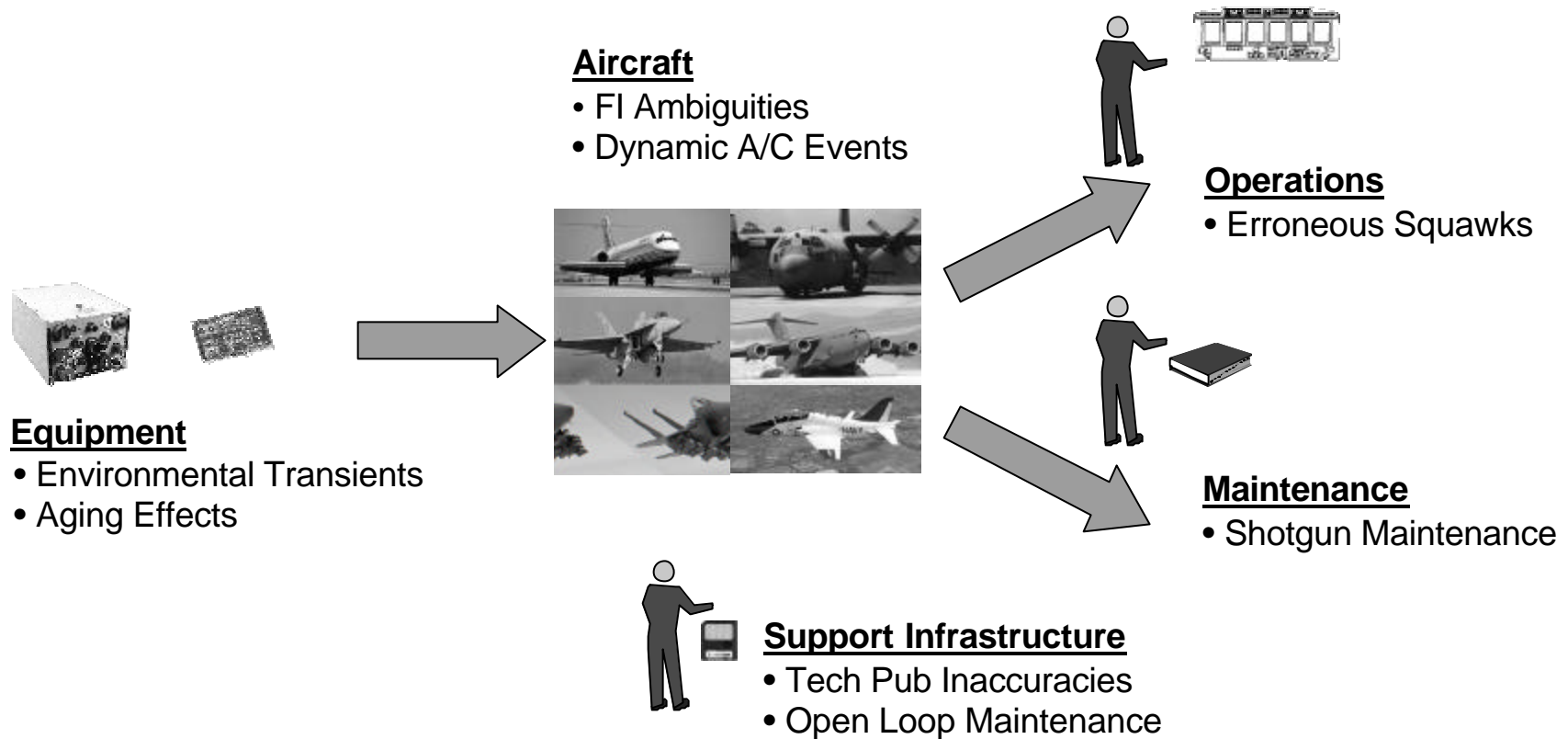
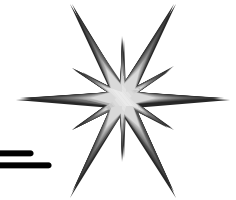
The Integrated Diagnostics Challenge



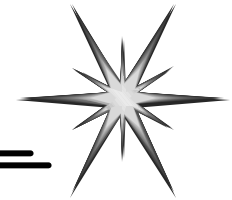
- Current industry performance is inadequate to support effective field operations
- New initiatives that address shrinking defense resources impose even more demands on the diagnostic system
- Legacy platforms impose practical constraints on potential solutions that must be addressed



Current Diagnostic Problems



Impact of New Acquisition Initiatives



Acquisition Reform
Open Systems
Commercialization
2-level Maintenance
Depot Privatization

Aircraft

- Diagnostic Standards
- Increased System Diagnostics



Operations/Maintenance

- O&S Cost Recognition
- Contractual Adherence to Structured Practices

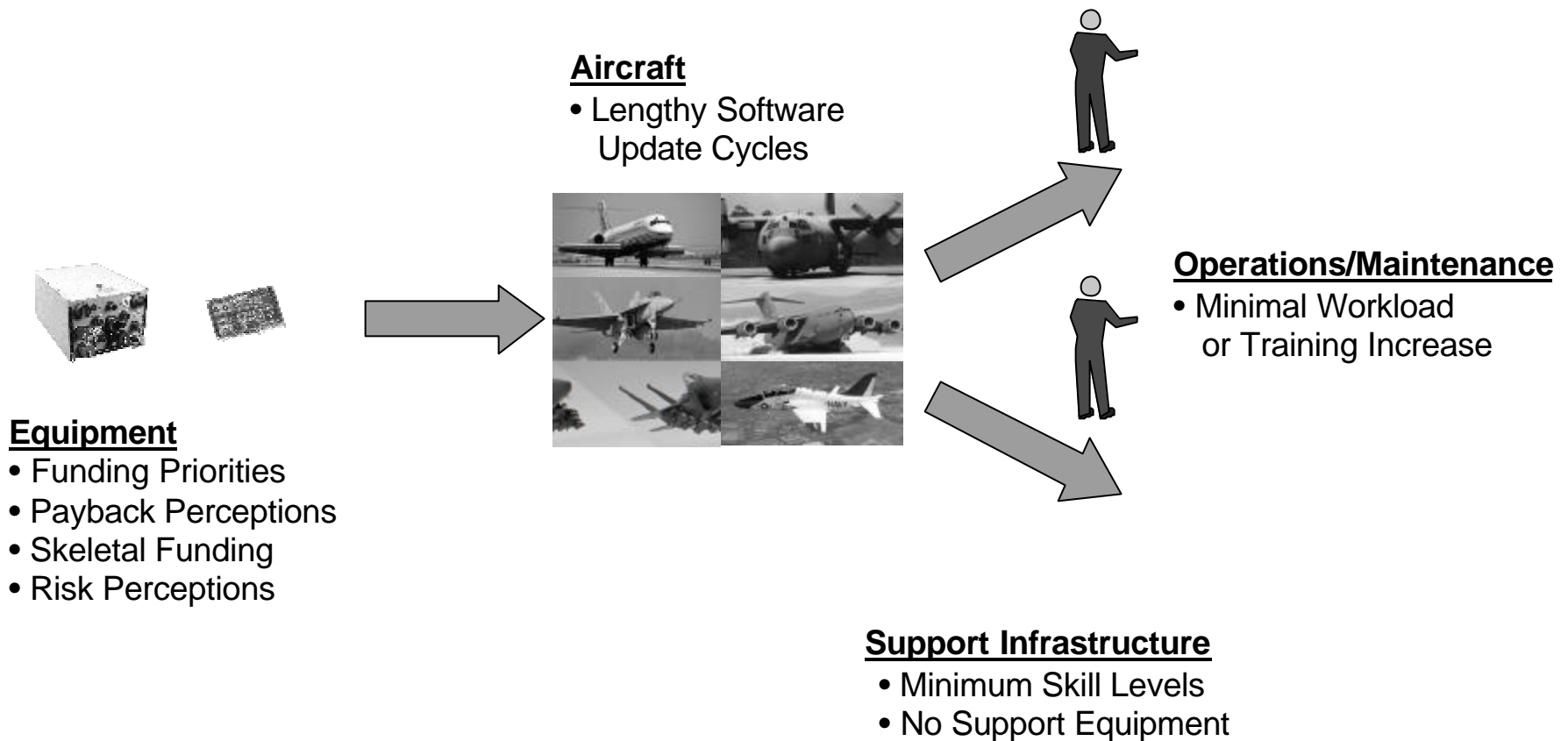
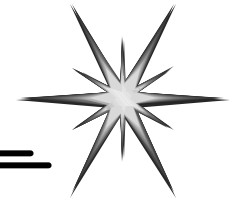
Support Infrastructure

- Longer Supply Pipeline
- TSPR/Warranty Responsibility

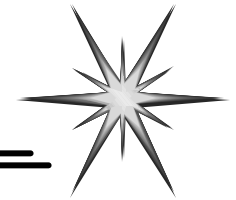
Equipment

- Reliance on OEM Processes
- Proper FA/CND Specification
- OSA/Reuse: Opportunity vs. Risk
- Environmental Compatibility

Additional Legacy Platform Constraints

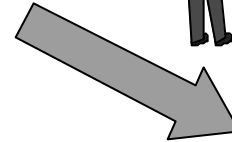
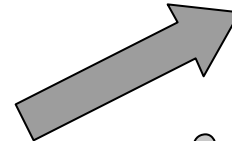


Incremental Evolutionary Approach



Aircraft

- Improved Requirements Definition
- External Fault Recording/Reporting
- Improved Verification Mechanisms
- Field Updateable Fault Filtering



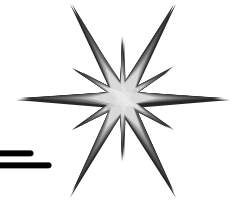
Equipment

- Balanced Design Approach
- Improved Verification Mechanisms
- Internal Fault Recording/Reporting
- Field Updateable Test Parameters/Filtering

Operations/Support Infrastructure

- Updateable Automated Debrief
- Off Board Fault Filtering
- ETMs/IETMs
- Structured Field Practices
- Integrated Support/Training

Summary



- Significant improvements in diagnostic performance are required to meet today's business objectives.
- Legacy platforms impose many practical constraints that require an incremental, evolutionary upgrade path.
- Various legacy Boeing programs have developed proven capabilities for addressing specific diagnostic shortcomings.
- Integration of such elements provides a comprehensive approach for sustaining legacy platforms in the future.

